WO 2005/105179 PCT/GB2005/001595

Claims:

20

25

1. An apparatus for aspirating, irrigating and/or cleansing wounds, comprising

- a) a fluid flow path, comprising a conformable wound dressing, having a backing layer which is capable of forming a relatively fluid-tight seal or closure over a wound and at least one inlet pipe for connection to a fluid supply tube, which passes through and/or under the wound-facing face, and and at least one outlet pipe for connection to a fluid offtake tube, which passes through and/or under the wound-facing face, the point at which the or each inlet pipe and the or each outlet pipe passes through and/or under the wound-facing face forming a relatively fluid-tight seal or closure over the wound;
- b) a fluid reservoir connected by a fluid supply tube to an inlet pipe via optional means for supply flow regulation;
 - c) optionally means for aspirate flow regulation, connected to a fluid offtake tube: and
 - d) at least one device for moving fluid through the wound dressing; characterised in that it comprises
 - e) means for supplying thermal energy to the fluid in the wound, and
 - f) means for providing simultaneous aspiration and irrigation of the wound.
 - such that fluid may be supplied to fill the flowpath from the fluid reservoir via the fluid supply tube (optionally via means for supply flow regulation) while fluid is aspirated by a device through the fluid offtake tube (optionally or as necessary via means for aspirate flow regulation).
- An apparatus according to claim 1, characterised in that it comprises a
 means for supplying thermal energy to the fluid in the wound which is a
 heater and/or conductively heated component of the apparatus flow
 path in direct conductive contact with the irrigant and/or wound
 exudate.

- 3. An apparatus according to claim 1, characterised in that it comprises a means for supplying thermal energy to the fluid in the wound which is a radiative heater of the irrigant fluid and/or wound exudate.
- 4. An apparatus according to claim 1, characterised in that it comprises a means for supplying thermal energy to the fluid in the wound which is a conductively heated component of the apparatus flow path in direct conductive contact with the irrigant and/or wound exudate, in turn heated by irradiation from a radiative heater.

10

- 5. An apparatus according to claim 1, characterised in that the means for providing simultaneous aspiration and irrigation of the wound often comprises
- a first device for moving fluid through the wound applied to fluid downstream of and away from the wound dressing, in combination with at least one of
 - a second device for moving fluid through the wound applied to the irrigant in the fluid supply tube upstream of and towards the wound dressing;
- 20 means for aspirate flow regulation, connected to a fluid offtake tube, and
 - means for supply flow regulation, connected to a fluid supply tube;
- 6. An apparatus according to claim 1, characterised in that the aspirate in the fluid offtake tube downstream of the wound dressing is aspirated into a collection vessel, and the first device acts on fluid from the collection vessel.
- 7. An apparatus according to claim 5, characterised in that the first device and/or second device is a fixed throughput device, and the means for providing simultaneous aspiration and irrigation of the wound also comprises at least one of means for supply flow regulation, connected to a fluid supply tube, and

means for aspirate flow regulation, connected to a fluid offtake tube.

35

- 8. An apparatus according to claim 5, characterised in that the first device and/or second device is a variable-throughput device, and the means for providing simultaneous aspiration and irrigation of the wound does not comprise other means for aspirate flow regulation, connected to a fluid offtake tube and/or other means for supply flow regulation, connected to a fluid supply tube.
- An apparatus according to claim 1, characterised in that the means for providing simultaneous aspiration and irrigation of the wound comprises means for providing simultaneous aspiration and irrigation of the wound comprises a first device for moving fluid through the wound applied to fluid downstream of and away from the wound dressing, and a second device for moving fluid through the wound applied to the irrigant in the fluid supply tube upstream of and towards the wound dressing.
 - 10. An apparatus according to claim 9, characterised in that the first device and/or second device is a fixed throughput device, and the means for providing simultaneous aspiration and irrigation of the wound also comprises at least one of means for supply flow regulation, connected to a fluid supply tube, and means for aspirate flow regulation, connected to a fluid offtake tube.
- 11. An apparatus according to claim 9, characterised in that the first device and/or second device is a variable-throughput device, and the means for providing simultaneous aspiration and irrigation of the wound does not comprise other means for aspirate flow regulation, connected to a fluid offtake tube and/or other means for supply flow regulation, connected to a fluid supply tube.

25

- 12. A conformable wound dressing for use in an apparatus according to claim 1, characterised in that it comprises a backing layer with a wound-facing face which is capable of forming a relatively fluid-tight seal or closure over a wound and has
- at least one inlet pipe for connection to a fluid supply tube, which passes through and/or under the wound-facing face, and at least one outlet pipe for connection to a fluid offtake tube, which passes through and/or under the wound-facing face, the point at which the or each inlet pipe and the or each outlet pipe passes through and/or under the wound-facing face forming a relatively fluid-tight seal or closure over the wound, and
- 13. A method of treating wounds to promote wound healing using the apparatus according to claim 1.

means for supplying thermal energy to the fluid in the wound.